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RESEARCH ARTICLE

Local sourcing embeddedness, manufacturing relocation, and firm attitudes toward the US-China trade war: A survey analysis of China-based MNC subsidiaries

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Abstract

This paper examines the attitudes of multinational corporations (MNCs) toward the U.S.-China trade war through an original survey of China-based MNC subsidiaries in the manufacturing industry. Our argument is in two parts. First, firms that have relocated production outside of China or are considering such moves should be less likely to oppose the trade war as they possess outside options that reduce their vulnerability to trade restrictions. Second, firms' tendency toward production relocation can in turn be explained by their local sourcing dependence, as measured by the level of such dependence and the degree to which their operations require supplier certification. This is because firms more heavily embedded in local supplier networks face stronger resource dependence that increases organizational inertia, reducing their ability to switch to alternative suppliers and therefore relocating production to other destinations. Our findings corroborate our hypotheses, highlighting how the heterogeneity in MNCs' supply chain relationships may influence both their manufacturing relocation decisions and trade policy preferences.

Keywords: Sourcing; manufacturing relocation; trade war; trade preferences; United States; China

Introduction

Since 2018, the United States and China have been involved in a tit-for-tat trade war, with far-reaching implications for both economies as well as for regional and global economic stability. While President Trump's trade war was intended to incentivize the reshoring of manufacturing and to bring jobs back to the United States, there are anecdotal reports that the trade war so far has failed to boost America's manufacturing capabilities. Instead, the imposition of large-scale tariff hikes has generated considerable uncertainty for firms embedded in global production networks and raised questions about whether they can effectively adapt their supply chains to remain competitive in today's increasingly volatile geopolitical and economic environments.[1] How do multinational corporations (MNCs), many of which have been either directly or indirectly impacted by the Trump tariffs,[2] view the trade war? To what extent do globally engaged firms actively support Trump's protectionist trade policies?

A growing number of studies have examined MNCs' political activities during the trade war, yielding some evidence that American companies with subsidiaries in China or those highly dependent on the

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[1]*USA Today*, 18 December 2020; *Wall Street Journal*, 25 October 2020.

[2]Recent studies have shown that besides consumers, the tariff hikes have inflicted considerable costs on companies, with increased duties on Chinese imports since the beginning of the trade war causing American firms $46 million by early 2020 (Amiti et al. [2020]); Haas and Denmark [2020]). Even companies that presumably would benefit from trade protection have felt the pinch due to the growing integration of global supply chains in the contemporary economy. For example, while Whirlpool Corp., Inc. has long pushed for protection from low-cost producers of washing machines in China and South Korea and while the tariffs have led to an immediate increase in the price of washers and dryers, the company's net income dropped to $94 million, a decrease of 41%, or $64 billion, in the first quarter of 2018 compared to the year before. *Wall Street Journal*, 16 July 2018.

imports of inputs from China are more likely to oppose the trade war than those without such ties to the Chinese market.[3] Recent studies have also analyzed the determinants of firm exit from China, showing that older firms or those with stronger political connections to the Chinese market are less likely to engage in such behavior.[4] While these studies shed light on the coalitional patterns behind Trump's trade war or firm-level attributes such as age in shaping exit decisions, less attention has been directed to how the heterogeneity in MNCs' supply chain relationships affects firm stance toward the trade war.

This article addresses this lacuna in the literature through an original survey of China-based MNC subsidiaries in the manufacturing industry conducted in late 2021. An analysis of MNC subsidiaries' preferences and behavior is important because although the interests of the parent company and those of its subsidiaries do not always converge, MNC subsidiaries nevertheless possess substantial bargaining power and autonomy vis-à-vis the headquarter due to their external embeddedness in relationships with suppliers, customers, and other stakeholders that should increase their ability to influence the latter's decisions and initiatives.[5] While it has also been argued that subsidiaries' attempts to increase their influence within the MNC may be circumscribed by the growing fragmentation of production across national borders, which tends to enhance headquarters' ability to monitor subsidiary activities or to counter subsidiaries' initiatives by reasserting control,[6] subsidiaries may nevertheless gain power and autonomy in strategic decisions in MNCs due to mutual dependence, dependence imbalance, functional power such as technological capabilities, or control over resources.[7]

Our argument is in two steps. First, we expect that firm attitudes toward the trade war should be influenced by the degree to which they possess outside options and hence the ease with which they can exit the Chinese market. Firms that have relocated production outside of China or are considering such moves should be less likely to oppose the trade war as they can more easily evade tariff barriers by shifting to other markets, leading to reduced vulnerabilities to trade restrictions. Second, MNC subsidiaries' propensity to relocate production may in turn be explained by their external embeddedness in the host economy, as reflected by their dependence on local suppliers and the degree to which they have developed strategic supplier relationships with host country firms through supplier certification that can ensure the quality and reliability of supplies and minimize operational risks. We expect that MNC subsidiaries with a higher level of strategic dependence on local suppliers, especially those that simultaneously have a high level of dependence on exports, should be less likely to shift production outside of China or to consider such moves. Their higher "sunk costs" in the Chinese market, or investments in production facilities or supplier relationships that cannot be easily recovered without substantial costs[8] should increase the disruptions that the tariffs would cause to their China operations, therefore reducing firm support for the trade war.

In our empirical analysis, we model firm stance toward the trade war as a function of their relocation decisions on the assumption that firms better positioned to shift production locations should be less vulnerable to elevated trade barriers as their greater operational flexibilities should better shield them from the uncertainties generated by the tariffs. We adopt a broad definition of relocation to refer to a generic change of location[9] that could involve backshoring, or the movement of operations back to the home country; nearshoring, or the transfer of production capabilities to another organization closer to one's own region; or the further offshoring of previously offshored activities to another location. Our empirical analysis lends substantial support to our theoretical propositions.

Our study makes the following contributions to existing literature. First, previous studies have emphasized the importance of multinational production and imports of intermediate products for support for free trade.[10] Our study extends this line of inquiry by identifying manufacturing relocation

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[3]See, e.g., Lee and Osgood (2021); Zhu et al. (2021).
[4]Vortherms and Zhang (2021).
[5]Andersson and Forsgren (1996); O'Donnell (2000).
[6]Chatzopoulou et al. (2021); Scott and Gibbons (2011).
[7]Birkinshaw (1997); Mudambi et al. (2014).
[8]Alessandria and Choi (2007); Baldwin and Krugman (1989).
[9]Albertoni et al. (2017).
[10]Manger (2012); Milner (1989); Osgood (2018).

as a determinant of MNC trade policy preferences and behavior. Second, it further contributes to the growing body of literature on the behavior of producers during trade wars by highlighting how the heterogeneity in firms' supply chain relationships influence their position taking on trade policy. Lastly, the study enriches the literature on international relocation[11] by showing how a subsidiary's external embeddedness in the host market may be an important factor influencing not only its bargaining power vis-à-vis the headquarter[12] or its market performance and competence development[13] but also its relocation decisions.

The rest of the article is organized as follows. The next section develops our main theoretical propositions based on a review of existing literature on firm trade policy preferences and the determinants of firm relocation. The article then introduces our research design, followed by discussions of our data, models, and results. We conclude by considering the theoretical and policy implications of our findings.

Perspectives on business preferences toward the trade war

Existing international political economy theories provide valuable insights for understanding the coalitional politics behind trade wars. For example, it has been argued that in contrast to import-competing industries that tend to favor trade protection, industries more heavily involved in the global economy through exports, intraindustry trade, or foreign investments should be more likely to support trade liberalization due to their greater concerns about the potential of foreign retaliation; increases in the costs of imports from subsidiaries or contractors; or the heightened competition that trade protection may generate in third markets.[14] The multinationalization of production, in particular, has received considerable attention in the literature, with a growing number of studies showing that MNCs have been an important force driving the formation of regional free trade agreements or the reduction of trade barriers.[15] The fact that MNCs often hold dominant positions within the domestic economy further enhances their ability to engage in collective action and to influence government policy.[16]

The growing fragmentation of production across national borders and the globalization of manufacturing supply chains have also generated scholarly interests in the sourcing of intermediate products jabroad as an important factor shaping trade policy preferences. Previous research has linked the sourcing of intermediate inputs to lobbying, support for trade agreements, or trade preferences.[17] An important assumption underlying these studies is that firms dependent on the sourcing of foreign inputs should be more likely to support trade liberalization to minimize the costs that tariff and nontariff barriers may impose on their cross-border activities. Recent studies have also explored how firms' trade policy preferences may be strongly influenced by their position in global production networks,[18] suggesting, for example, that businesses heavily involved in vertical foreign direct investment should be even more likely to lobby for trade liberalization compared to those highly dependent on input sourcing.[19]

The preceding theoretical perspectives have implications for understanding business preferences toward the trade war in an era of growing supply chain integration between the United States and China. As the Chinese government gradually liberalized its policy toward foreign direct investment (FDI) to promote export-oriented industrialization, multinational firms have flocked to China to take advantage of the opportunities provided by China's cheap labor, abundant natural resources, and large consumer base. This process has led China to become the center of the world's manufacturing activities, overtaking the United States as the top destination of FDI in 2020 despite the

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[11]Barbieri et al. (2018); Foerstl et al. (2016); Wiesmann et al. (2017).
[12]Ambos et al. (2010); Andersson et al. (2007).
[13]Andersson et al. (2002); Birkinshaw et al. (2005).
[14]Milner (1989).
[15]Jensen et al. (2015); Manger (2009, 2012).
[16]Kim and Milner (2021).
[17]Eckhardt and Poletti (2016); Gawande et al. (2012); Meckling and Hughes (2017); Osgood (2017, 2018).
[18]Kim et al. (2019).
[19]Zeng (2021).

uncertainties generated by the trade war and the pandemic.[20] According to Lardy, total FDI into China grew by more than 10 percent to reach $212 billion, or a quarter of global FDI, in that year.[21] Rising FDI has also deepened China's integration into global value chains (GVCs) in which lead firms from developed countries focus on product design, research and development, distribution, and marketing, while offshoring production and assembly activities to lower-cost countries such as China.[22]

What are the implications of growing supply chain integration for business preferences toward the trade war? The theories of trade politics described in the preceding text should lead us to expect that MNCs with subsidiaries in China and those more heavily dependent on sourcing from China should be more likely to oppose the trade war or to seek exclusion from the tariffs. Indeed, recent empirical work has yielded some evidence in support of these conjectures, demonstrating that American companies that have publicly voiced opposition to the tariffs in their submissions to the US Trade Representative regarding the Section 301 investigations against China far outnumbered those that have expressed support.[23] They additionally suggest that MNCs with affiliates in China and those dependent on the import of inputs from China have been the leading opponents of the tariffs. Overall, these studies suggest that rather than supporting President Trump's trade war, a broad swath of American businesses heavily embedded in global production networks have launched a concerted effort to resist the Trump administration's efforts to decouple the two economies and preserve the basis of free trade with China.

In addition to input sourcing and multinational production, recent studies have also directed attention to other sources of heterogeneity in MNC attitudes toward the trade war. For example, Liu et al. finds that firm size is an important determinant of firms' choice between either lobbying the home government through "voice" or exiting the Chinese market.[24] However, while size may be an important factor shaping firm behavior, MNCs also differ with respect to the mode of business operations in China (e.g., producing in China for either the Chinese or overseas markets), ties to local suppliers and customers, and bargaining power vis-à-vis local governments. It is reasonable to expect that such heterogeneity should also influence the degree to which firms can make fluid adjustments to their China operations and hence the magnitude of the costs imposed by the trade war, considerations which should in turn affect business preferences toward the trade war. We address this possibility in the following section, focusing in particular on how MNCs' relationship with local suppliers may affect the ease of shifting production away from the Chinese market and consequently their stance toward the trade war.

Local sourcing embeddedness, relocation, and trade war attitudes

Manufacturing relocation and trade war attitudes

In developing our argument about firm attitudes toward the US-China trade war, we focus on the so-called sunk costs, or costs that have already been incurred and cannot be readily recovered (such as investments in the development of distribution and sales channels or servicing networks) in shaping firms' calculations regarding the relocation of manufacturing activities. Previous research has shown that relationship-specific sunk costs may not only constitute barriers to entry[25] but may also increase the difficulty for a firm to shift to alternative export or investment destinations once it has developed trade or investment relations with partners in a given jurisdiction.[26] If sunk costs affect the ease of moving to alternative markets, then we should expect that the exogenous shocks generated by the trade war should have further accentuated the heterogeneity in firms' ability to adjust their China operations to minimize the costs imposed by the tariffs. While firms more heavily embedded in the Chinese market due to greater dependence on either Chinese suppliers, customers, or distribution channels

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[20]*Wall Street Journal*, 24 January 2021.
[21]Lardy (2021).
[22]Xing (2021).
[23]Lee and Osgood (2021, 2022).
[24]Liu et al. (2022).
[25]Baumol et al. (1982).
[26]Baldwin (1988); Dixit (1989); Helpman et al. (2004).

may find it more difficult to exit China, those with less established relationship-specific investments may face fewer impediments in making such adjustments. To the extent that those firms that face higher hurdles to exit may be less likely to adjust their activities to evade the costs of the tariffs, it is reasonable to expect that they should also be more likely to oppose the trade war. *Ceteris paribus*, the reverse should be true for firms with less dense network relationships in the Chinese market.

A number of factors, such as marketing, research, and investment in physical assets or facilities, may potentially affect the size of the sunk costs and hence the costs of exits. In the following analysis, we focus on a firm's relocation tendency as an important determinant of its exit costs. During the past decades, the deregulation of national markets and the development of information and communication technologies have played important roles in stimulating the relocation of processes and operations or even entire plants that were previously offshored from developed to developing countries. Firm relocation, which could take place through further offshoring, backshoring, or nearshoring, has had important implications for employment, supply chains, and the economy.[27]

As the elevated tariffs have increased the pressure for firms to reevaluate their overall strategies for dealing with rising political and economic uncertainty, we expect that whether firms have already relocated part of their businesses from China or can afford to engage in such activities without incurring substantial costs should be an important factor influencing their vulnerability to the tariffs and hence trade war attitudes. To be sure, relocation from the Chinese market has preceded the trade war. Rising labor costs, regulatory uncertainty, and a business environment that has become more hostile to foreign investors, have been some of the main driving forces behind these changes.[28] However, there exists considerable variation in firms' ability to downsize their operations in China or to leave the Chinese market. Firms that can reasonably relocate production to other low-cost regions such as southeast Asia, engage in nearshoring in neighboring countries such as Mexico, or backshore production to the home country possess outside options that allow them to continue their operations without being subject to the increased costs of conducting business from mainland China. Given their lower exit costs, these firms should therefore be less likely to oppose the trade war. The calculations of firms that lack such options are different. For those firms for which relocation is a distant possibility, the US tariffs and Chinese retaliatory tariffs threaten to increase the price of both imports and exports, in addition to increasing the uncertainty and volatility of the business environment, all of which may negatively affect their profitability and competitiveness in both the Chinese and global markets. It is therefore reasonable to expect that such firms should be more likely to oppose the trade war.

Of course, firms differ in the extent to which they export to the United States and hence their vulnerability to the US tariffs, with those firms with more extensive exposure to the US tariffs more likely to oppose the trade war. We address this possibility in our analysis and hypothesize that when considering exposure to the Trump tariffs, *firms that have either relocated production from China or are considering such moves should be less likely to oppose the trade war, and vice versa* (Hypothesis 1).

The next logical question to ask is therefore what influences the variation in firms' ability to relocate manufacturing activities. While the international business literature has identified a few drivers of reshoring activities, in the following analysis, we focus on the organizational inertia of the subsidiary deriving from its resource dependence on the host market as a major impediment to the relocation of manufacturing activities.

Local sourcing dependence and relocation

Existing studies have approached reshoring from the theoretical frameworks of the eclectic paradigm, transactional cost economics (TCE), and the resource-based view (RBV). Dunning's eclectic paradigm focuses on how considerations of ownership, location, and internalization (OLI) advantages shape the international activities of MNCs.[29] This approach has been applied to studies of not only offshoring[30]

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[27]Kazmer (2014); Krenz et al. (2021).
[28]*Forbes*, 18 June 2021.
[29]Dunning (1980, 1988).
[30]Eden and Dai (2010).

but also reshoring activities.[31] The TCE perspective, in contrast, emphasizes how the desire to reduce coordination and incentive costs and to address issues arising from incomplete contracts could affect firms' choice between internalizing the transaction through a hierarchy (such as through reshoring) or engaging in arms'-length transactions.[32] The RBV approach in turn links resources to the competitive advantages of a firm.[33] From this perspective, value chain relocation presents MNCs with an option to preserve access to resources in case they fail to access or exploit resources in the host country to maintain competitive advantage,[34] or if they risk losing unique resources such as intellectual property rights.[35]

Studies grounded in the previously mentioned theoretical frameworks have sought to identify both the external and internal drivers of value chain relocation. External drivers mainly result from changing dynamics in the host country such as rising labor or energy costs in the host country; logistic costs for international shipments; technology clustering trends outside of the host country and the resulting spillover effects;[36] and rising uncertainty in global supply chains.[37] Besides the drivers that originate from the external environment, dynamics within MNCs may also motivate reshoring activities.[38] Examples of such internal drivers include the coordination and communication costs caused by the complex organization of MNCs;[39] insufficient capacity utilization in the host country;[40] customer proximity outside of the host country;[41] and the automation of production that lowers the production costs in the home country.[42]

While the existing literature has advanced our understanding of why firms engage in relocation, the mechanisms underlying such a phenomenon merits further exploration.[43] Furthermore, it remains unclear why some firms have chosen not to relocate production and sourcing activities and why relocation has not become more prevalent in the age of GVC integration. To address this question, we focus on MNC subsidiaries as a key agent in influencing a firm's decision to engage in offshoring versus reshoring. This is because MNC subsidiaries serve as a new stakeholder that does not yet exist at the time the initial offshoring decision was undertaken. How MNC subsidiaries evaluate the benefits and costs of relocation thus plays an important role in influencing the headquarter's decisions. When subsidiaries face strong organizational inertia against change, then they should be expected to bargain with the headquarter to influence the decision-making process, and this is especially the case if the subsidiaries are subject to relocation of their current responsibilities. While previous studies suggest that age, size, and the complexity of an organization are key factors shaping organizational inertia,[44] we focus on the role of resource dependence in influencing subsidiary preferences.

Originally proposed by Pfeffer and Salancik, the resource dependence theory (RDT) focuses on the influence of external resources on organizational behavior.[45] The theory posits that firms engage in transactions and negotiations with other actors and organizations in their external environment to obtain both tangible and intangible resources such as financing, inputs, and the recognition needed for survival. Such transactions generate dependencies and differences in power and authority between organizations with the resources and those without them, allowing the former to exercise power in

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[31]Ellram et al. (2013).
[32]Gray et al. (2013); McIvor and Bals (2021); Williamson (2008).
[33]Barney (1991).
[34]Canham and Hamilton (2013).
[35]Tate et al. (2014).
[36]Srai and Ané (2016).
[37]Ancarani et al. (2015); Ellram et al. (2013); Moradlou and Backhouse (2016).
[38]Barbieri et al. (2018).
[39]Fel and Griette (2017); Fratocchi et al. (2016); Kinkel (2012).
[40]Fratocchi et al. (2015); Stentoft et al. (2016).
[41]Foerstl et al. (2016); Fratocchi et al. (2016).
[42]Ancarani et al. (2019); Foerstl et al. (2016); Fratocchi et al. (2016).
[43]Barbieri et al. (2018); Boffelli et al. (2020).
[44]Kelly and Amburgey (1991).
[45]Pfeffer and Salancik (1978).

areas such as pricing or organizational structure. RDT has been shown to contribute significantly to explaining "behavior, structure, stability, and change of organizations."[46]

We focus on subsidiaries' dependence on input sourcing as an important source of organizational inertia. As China has emerged as a center of global manufacturing activities, China-based MNCs have resorted heavily to the local sourcing of components and intermediate products from indigenous firms out of considerations of "costs, proximity, flexibility, delivery reliability and tariff and non-tariff barriers."[47] Firms are further motivated to source locally to enhance core competencies and reduce transaction costs. The backward linkages created by such activities may not only benefit MNCs but may also generate positive spillovers for the local economy.

We expect that local sourcing dependence could influence firms' relocation propensity by increasing their sunk costs and hence organizational inertia. Given that an important motivation for firms to invest in China is to take advantage of its abundant labor and natural resources, the ability to maintain steady and reliable access to raw materials, components, and other inputs necessary for production remains a salient concern for those firms that are heavily embedded in local supplier networks. While firms may seek to reduce such dependence through political lobbying, horizontal and vertical integration, or the diversification of the supplier base,[48] a high level of local sourcing dependence may nevertheless reduce the ease with which firms may be able to switch to alternative suppliers and therefore the ability to relocate production to other destinations.

In the following analysis, we measure local sourcing dependence by not only the level of a firm's dependence on Chinese suppliers but also the extent to which it is subject to supplier certification. As a part of a larger strategy of supplier quality management, supplier certification involves the auditing of a potential supplier regarding its process, facility, project team, product design, and service capabilities. Only those suppliers who meet the firm's minimum requirement and can pass the audit can be certified as valid suppliers. The validation of a new supplier tends to consume considerable time and resources, including in areas such as purchasing, research and development, production, logistics, and service.[49] This is especially the case if the supplier is located outside of the host country. Consequently, compared to those firms that can shift suppliers without the need for certification, local firms that require the certification of new suppliers on certain products will likely incur greater costs when substituting existing suppliers with those from a third country. Supplier certification further seeks to enhance the firm's coordination with its suppliers, ensure quality control, and improve supplier performance by setting the minimum requirements expected from the supplier. By allowing for the development of a set of relatively uniform and consistent methods of managing the suppliers, the process of certification facilitates communication, information sharing, and collaboration and puts the relationship between the parties on a more stable footing. While supplier certification is not always mandatory for either domestic firms or China-based MNC subsidiaries, the ability to comply with voluntary standards can nevertheless enhance a foreign company's competitiveness both nationally and globally by ensuring product quality and reducing the risks for substandard products.

In the automobile industry, for example, certain parts and components can only be purchased or sold if the supplier can meet the China Compulsory Certification (CCC) requirements and bear the CCC mark. Firms can additionally obtain voluntary certification from the China Certification Center for Automotive Products to enssure the compliance of their products with Chinese standards and regulations. The existence of these mandatory and voluntary certification requirements has

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[46]Nienhüser (2008).

[47]Wei et al. (2012).

[48]Pfeffer and Salancik (1978).

[49]For example, the purchasing department needs to search and find a qualified supplier who can make the parts they need. R&D will check the technical specification and visit the supplier's facility to determine whether they can meet the technical requirements and, if not, offer support to upgrade the supplier's ability. Once the new supplier has been introduced, production then needs to be made aware of it and, if necessary, adjust the production process accordingly. The logistics department in turn needs to make sure that the new supplier is integrated into the production system, including shipment, just-in-time arrangements, and the arrangements for storage, etc. Service needs to ensure the adequate supply of parts from new and old suppliers alike as part of spare parts management.

therefore enhanced the incentives for foreign companies to conduct supplier audits to verify that the supplier meets the necessary standards needed for production and sale in either the domestic Chinese market or world markets. As they increase the foreign affiliates' embeddedness in the local market, such relationship-specific transactions should in turn increase organizational inertia and undercut incentives for exiting the Chinese market. This should especially be the case for those companies that export from China rather than those that produce in China mainly to serve the Chinese market and hence are more insulated from the impact of the trade war.

It should be noted that our argument about the factors that influence relocation is not specific to China-based MNC subsidiaries that export to the United States. Even if a firm does not export to the United States, its more extensive involvement in international trade should have made it more vulnerable to the potential rise in protectionism in partner countries. Furthermore, to the extent that the US tariffs may have jeopardized the potential for firms that currently do not export to the United States to do so in the future, it is possible that these firms may still have unfavorable views of the trade war.[50]

Hypothesis 2: *When considering export orientation, firms more heavily embedded in local supplier networks, as measured by the level of dependence on Chinese suppliers and the extent to which their suppliers are subject to certification, should be less likely to relocate production or to consider doing so.*

Figure 1 presents the hypothesized relationships between firms' embeddedness in local supplier networks, tendency toward relocation, and attitudes toward the trade war.

Research design

We test our hypotheses through an online survey of China-based MNC subsidiaries between November and December 2021. The survey was implemented by an internet marketing research firm, SoJump, which maintains a registered user pool of more than 2.6 million. The company reached out to a random pool of potential participants through phone calls, text messages, or other popular social media platforms and used incentives such as lucky draws or points that can be exchanged for vouchers for online shopping sites to encourage participation. Respondents were also incentivized to participate in the survey by utilizing the company's free services to conduct their own marketing research. A prescreening questionnaire was distributed to ensure that the survey targeted mid- and upper-level managers of China-based MNCs in the manufacturing industry knowledgeable about the company's operations, including general managers, chief executive officers, chief operating officers, vice presidents, and directors of functional units such as human resources, finance, sales, and so forth and meet the other criteria for inclusion into the survey. As the respondents have no prior knowledge of the survey's target population, this should have minimized their incentives to misrepresent their position within the firm. Respondents who provided false information would also potentially lose the opportunity to proceed to the formal survey. To incentivize participation, each participant was given a small monetary award upon completion of the survey. A series of steps were also taken to ensure data quality such as by setting restrictions on the IP address, prohibiting the submission of answers on the same device,[51] eliminating questionnaires that were completed in less than ten minutes, and conducting random manual checks.

Because the survey targeted respondents that potentially meet the eligibility criteria and the survey distribution was disabled once a predetermined number of responses has been collected, we are unable to calculate the response rate as one could using the traditional survey method. At the end of the survey period, we were able to collect a total of 457 valid responses from managers of China-based subsidiaries in the manufacturing industry.[52]

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[50]In analyzing both hypotheses, we further control for a firm's exposure to the Trump tariffs. See the section on "Control Variables" for how this variable is constructed. We expect that firms with more extensive tariff coverage should be more likely to oppose the trade war, and vice versa.

[51]This procedure was adopted to avoid the respondent taking the survey more than once to earn extra points or credits.

[52]We excluded eighteen responses collected from the original sample of 475 firms from the analysis as these respondents had chosen two mutually exclusive answers on some of the questions.
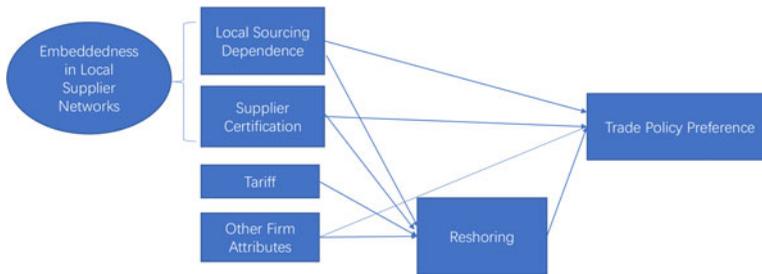
Figure 1. Hypothesized relationships among the main variables.

The firms are located in thirty-one of the thirty-two provinces and municipalities in China, with the top five provinces and municipalities being Guangdong (11.98%), Shanghai (10.08%), Beijing (9.13%), Jiangsu (8.56%), and Sichuan (7.03%). The average age of the subsidiary is 15.6 years. While all 457 firms have foreign shareholders, 295 (or 64.55%) and 194 (or 42.45%) of them also include private and state capital as their shareholders, respectively. The firms are fairly evenly distributed with regard to size, with the percentage of firms employing fewer than 500 employees, 500–1,000 employees, 1,000–2,000 employees, 2,000–5,000 employees, and 5,000–10,000, and more than 5,000 employees being 14.66%, 31.51%, 18.60%, 17.29%, 10.28%, and 7.66%, respectively.

In terms of the firms' country of origin, 131 (28.67%) of the firms are headquartered in the United States, followed by Japan(124 or 27.13%), the European Union (109 or 23.85%), and Hong Kong (31 or 6.78%). The relatively small share of firms headquartered in Hong Kong in our sample compared to the region's relatively large share in China's total investment can be explained by the fact that investment by Hong Kong firms in mainland China is concentrated in activities such as real estate, leasing, and business services and that manufacturing activities only constitute a small share of Hong Kong's investment in the mainland.[53] With regard to the sectoral composition of the firms, the top sectors represented in the sample include food processing (86 or 18.78%); computers, electronics, and optical products (81 or 17.69%); textiles and apparel (66 or 14.41%); and chemicals and chemical products (31 or 6.77%).

Dependent variable

We asked the following question to assess the degree of firm support for the trade war: "Does your company support the trade war that the Trump administration has launched against China?" Respondents can choose one of the following answers to this question: (a) "strongly oppose"; (b) "oppose"; (c) "neither support nor oppose"; (d) "support the goals of the trade war, but oppose the approach used to realize these goals (i.e., tariffs)"; (e) "support the goals of the trade war, but would like to see the government reduce or eliminate the tariffs imposed on our company's products";[54] (f) "support"; and (g) "strongly support." Because a small number of firms either "support" or "strongly support the trade war," we combined the last four categories (d through g) to derive an ordinal measure of trade war attitudes (*support*). *Support* is coded on a scale of 1 to 4, ranging from "strongly oppose" to "support." Figure 2 presents the distribution of the respondents' answers to this question.

As Figure 2 shows, a large percentage of the firms either "strongly oppose" or "oppose" the trade war (176 firms or 38.51% and 144 firms or 31.51%, respectively), while only eighty firms (or 17.51%) have expressed some form of support, with another fifty-seven firms (or 12.47%) neither supports nor opposes the trade war. This result is in line with the findings of recent studies (e.g., Lee and Osgood 2021) which show that protrade firms and associations in the United States have voiced strong

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[53]For example, manufacturing accounted for just 15.6% of Hong Kong's total investment in mainland China in 2019. *Statistical Bulletin of FDI in China 2020* (2020).

[54]We leave open the possibility that respondents may interpret the goals of the trade war differently. As our main concern is not about how respondents view the objectives of the trade war, response categories (d) and (e) should capture the degree to which the respondent supports the protrade war, albeit with certain concerns or reservations.
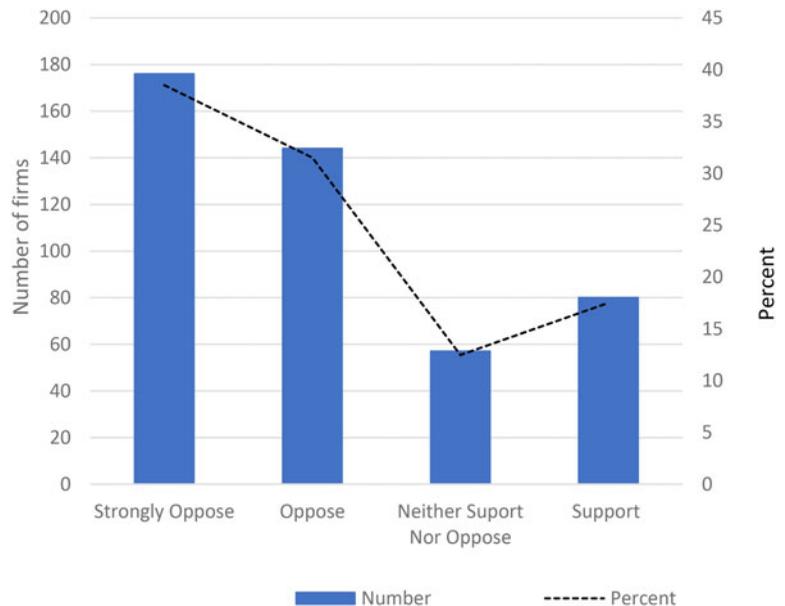
Figure 2. Firm attitudes toward the trade war.

concerns and fought strenuously against the trade restrictions. As robustness checks and to facilitate analysis using causal mediation analysis, we also ran models with a dummy variable *support_dummy* as our main dependent variable, coded as 1 if a firm chooses "neither support nor oppose" the trade war or if it supports the trade war, and 0 if a firm either "strongly opposes" or "opposes" the trade war. In total, 320 (70.02%) of the firms in the sample are opposed to the trade war, while 137 (29.98%) are either neutral or have expressed some form of support for the trade war.

One potential concern with the use of a survey-based measure of firms' preferences and behavior with regard to relocation is that firms may be lashing out at the trade war by making vague threats of relocation in a low-stakes environment. However, the fact that we only asked questions about firms' attitudes toward the trade war at the very end of the survey after the relocation decision questions should help ameliorate concern about this alternative interpretation of the results.

Key independent variable

One of the key independent variables of interest to our study is firms' propensity toward manufacturing relocation. We asked the following question to capture this tendency: "*Has your company already relocated some or all of its China-based production to other countries or regions or are you considering such moves?*" Answers to this question are recorded on a 1–3 scale, with 3 indicating that a firm has already relocated some or all of its China-based production activities to other markets; 2 if a firm is considering relocation but has not undertaken such moves; and 1 if a firm is not considering relocating manufacturing outside of China. Survey results show that the relocation of production is still not a widespread phenomenon among China-based MNCs in the manufacturing industry as only twenty-nine (or 6.35%) of the firms indicated that they had already engaged in relocation. Instead, most of the firms (290 or 63.46%) responded that they had not considered relocation to other destinations, with another 138 (or 30.20%) of the firms responded that they were considering relocation but had not taken any action. This pattern suggests that MNCs in the manufacturing industries have not yet exited the Chinese market on a large scale. To facilitate the following empirical analysis, we ran models with *relocation* coded as a dummy variable. *Relocation* equals 1 if a firm has already relocated outside of China or is considering doing so, and 0 if a firm has never considered such moves.[55]

[55]Because the following causal mediation analysis does not support the use of an ordinal outcome variable, we choose to report results using relocation coded as a dummy variable throughout the analysis. To ensure that our results are robust to

For firms that have already relocated production outside of China, we further asked them to rank order the periods during which such moves took place, with 4 indicating the period when most of these activities occurred, and 1 indicating the period when relocation took place least frequently. Firm responses show that relocation took place most frequently between the global financial crisis in 2008 and the onset of the trade war in 2018, with an average score of 2.87, followed by the period between the initiation of the trade war in 2018 and the beginning of the pandemic at the end of 2019 (2.7), the pre-2008 period (2.52), and the period after the pandemic (1.91). These results indicate that firms have already started to engage in relocation prior to the beginning of the trade war.

Our study was conducted at the end of 2021, which was three years after the launch of the trade war. One question that may be raised about the research design is that some firms may have already left China by the time of the research due to the pressures generated by the trade war, compounded by the COVID-19 pandemic. It should be noted, though, that instead of completely shutting down operations in China and relocating elsewhere, firms frequently choose to maintain exposure to the Chinese market and only relocate part of their production capabilities to hedge against potential changes in political and economic conditions. Even if a firm has closed its original business, it does not necessarily mean that it has exited the Chinese market as it may continue to invest in China by registering in another location or through other modes of operation.[56] More generally, recent studies have shown that firms were unlikely to engage in reshoring, nearshoring, or diversification in the aftermath of a new shock such as the 2011 earthquake in Japan as such moves would not only be costly, but may also be unable to offer the necessary protection against future disruptions.[57]

Furthermore, the proportion of respondents in our sample who indicated that they have either relocated or plan to relocate production is roughly comparable to that reported by foreign business associations in China. For example, the annual China Business Climate Survey conducted by the American Chamber of Commerce in China (AmCham) in 2020 suggests that the percentage of surveyed members who reported having started the process of relocating manufacturing or sourcing outside of China has gradually decreased from 12% in 2017 to 9% in 2019, while the percentage of those who were considering relocation but have not taken active steps has declined from 11% to 8% during this period.[58] Similarly, the *Business Confidence Survey* (2022) released by the European Union Chamber of Commerce in China shows that despite the supply chain disruptions caused by the trade war and the pandemic, European companies have remained committed to the Chinese market throughout 2021. In February 2022, only 11 percent of the respondents reported that they were considering relocation out of China, increasing to 23 percent by April 2022. In addition, about two-thirds of the respondents ranked China among the top three investment destinations, with the proportion of companies making this choice reaching as high as 40 percent in professional services and 32 percent in petrochemicals, chemicals, and refining.[59] The previously mentioned data are generally consistent with the pattern shown in our survey, suggesting that a vast majority of American and European companies have chosen not to leave China as they view the potential rewards of staying invested in the Chinese market as outweighing the risks posed by recent developments. The relocation rate reported by firms in our sample is likely lower than that reported by AmCham because our sample covers only firms in the manufacturing industry that tend to have greater sunk costs relative to those in other industries such as services, costs that may have limited the ease of relocating to other markets.

Because we model firms' tendency toward relocation in terms of their embeddedness in local supplier networks, we also asked a couple of questions to capture such embeddedness. First, we asked the firms about the share of goods and services that they source from China in their total sourcing activities (*local sourcing*). Among the firms in our sample, 3.50% indicated that local sourcing accounted for less than 20% of their total sourcing activities. The share for those companies that have sourced

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the use of alternative measures of *relocation*, we recode *relocation* as an ordinal variable ranging from 1 to 3 and present the results in Table 5.

[56]Authors' interviews with firm managers, July 2022.
[57]Freund et al. (2022).
[58]AmCham China (2020).
[59]European Union Chamber of Commerce in China (2022).

20–40%, 40–60%, 60–80%, and more than 80% of their products from China is 23.63%, 36.76%, 26.70%, and 9.41%, respectively. Second, we further asked the firms the share of their sourcing activities that involve supplier certification (*supplier certification*). The percentage of respondents who indicated that the share of their sourcing activities that involve supplier certification is less than 25%, between 25 and 50%, between 50–75%, and more than 75% is 3.94%, 19.04%, 26.70%, and 32.39%, respectively. We weighted each of the preceding variables by the share of a company's exports in its total sales (*exports*) because firms that export a relatively large share of their products to the international market may differ significantly from those that primarily serve the Chinese domestic market in their vulnerability to trade protectionism. This procedure yielded our main measures of a firm's embeddedness in local supplier networks: *local sourcing × exp* and *supplier certification × exp*.

Control variables

We took into consideration a set of variables that may influence firms' trade war attitudes and their relocation tendency. We first examined the influence of variables that may affect both trade policy preferences and the likelihood of relocation. These variables include the age of the subsidiary (*age*); firm size, as measured by the number of employees (*employees*) and revenue in mainland China in 2020 (*revenue*); *productivity*, which is measured on a scale of 1–5, ranging from "not productive at all" to "very productive;" and market share in China (*market share*).

We further included controls for the degree to which the firm can easily find substitutes for Chinese suppliers in overseas markets (*substitution*) as well as the share of its fixed assets in the Chinese market. *Substitution* is an ordinal variable measured on a 1–6 scale, with 1 indicating "not easy at all" and 6 denoting "very easy." Fixed asset share is measured as the share of fixed assets in a firm's total assets in mainland China. It is expected that firms with more fixed asset investments in China may be less likely to relocate production due to investments in dedicated markets that may not be easily recovered.[60]

Trade profile may be another factor influencing firm trade policy preferences. We therefore included a firm's *exports* and *imports*, measured as the share of exports in the firm's total sales and the proportion of imported products in its total purchases, respectively, to account for the possibility that export-oriented firms should be more likely to support free trade, while those facing stronger competition from foreign imports should be more protectionist.[61]

Firms' attitudes toward the trade war and relocation tendency may also have been influenced by the degree to which the firm is concerned about Chinese trade practices that may negatively affect its operations (*performance*). To derive this variable, we asked the companies the degree to which they approve of Chinese performance in the following areas—improving the transparency, predictability, and fairness of the regulatory environment; strengthening protection of intellectual property rights; restricting the use of industrial policies that create regulatory barriers; providing recourse to China's unfair treatment of foreign investors; expanding market access for previously restricted products and services; scaling back requirements on technology transfer; reducing the need for foreign investors to have local business partners or to establish joint ventures; and allowing foreign companies to engage in mergers and acquisitions in China. We took the average of the responses across these categories to derive our measure of *performance*. Because a higher score on this variable indicates greater approval of and hence less intense concerns about Chinese practices, a negative relationship is expected between this variable and trade war attitudes.

We expect that larger and more productive firms and those with a larger share of fixed assets in China should be more likely to oppose the trade war and less likely to exit the Chinese market through relocation. The pattern should be the reverse for those firms that can more easily find substitutes for Chinese suppliers or have strong concerns about China's trade practices. We further take into consideration a firm's tariff exposure. Specifically, we calculate tariff exposure (*tariff*) as the interaction between the average tariffs on the firm's exports to the United States following the trade

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[60]Arkes and Blumer (1985); Davis and Meunier (2011).
[61]Destler and Odell (1987); Milner (1989).

war (*tariff_average*) *and* the share of the company's products subject to the tariffs (*tariff_coverage*). Both *tariff_average* and *tariff_coverage* are ordinal variables, with "1" indicating that the firm does not export to the United States and higher values indicating higher average tariffs or tariff coverage. We expect that firms with more extensive tariff exposure should be both more likely to relocate and to oppose the trade war, and vice versa.[62] For relocation models, we additionally consider the share of the firm's revenue in China in its global revenue (*revenue*) that captures the importance of the Chinese market relative to other world markets for the firm.

Appendix 1 presents the descriptive and correlation statistics of the main variables included in the analysis.

Models and results

In our empirical analysis, we test Hypothesis 1 by modeling firms' attitudes toward the trade war as a function of their tendency to relocate production using both the ordered probit and the probit methods (Table 1). To test Hypothesis 2, we first ran reduced form regressions on the relationship between local supply chain embeddedness and *relocation* using the probit and ordered probit approaches (Table 2). We then used causal mediation analysis to estimate the effect of local supplier networks that operate through relocation activities (Table 3). All models include fixed effects at the level of the subsector within the manufacturing industry, with robust standard errors clustered on the subsector.

Columns 1–3 and 4–6 in Table 1 present results of ordered probit and probit analysis of the effect of relocation on firm attitudes toward the trade war, respectively. As we can see, *relocation* has the expected positive sign and is statistically significant at the $p < 0.01$ level across model specifications. These results are in line with our expectation that firms that have engaged in or are considering the relocation of production should be more (less) likely to support (oppose) the trade war. Figure 3 presents the predicted probability that a firm will either "strongly oppose" or "support" the trade war when all other variables are held at their mean based on Model 3 in Table 1. As Figure 3 shows, increasing *relocation* from 0 to 1 while holding all other variables at their means will lead the predicted probability that a firm will "strongly oppose" the trade war to decrease from 0.461 to 0.247, while a change of the same magnitude will lead the probability of "support" to increase from 0.116 to 0.272.

Other results that are worth noting are that firms with larger market shares in China or can more easily find substitutes to Chinese suppliers in overseas markets are more likely to support the trade war, and that more productive firms and those indicating a higher level of approval with Chinese trade practices are less likely to do so. These results hint at the possibility that firms' productivity, presence in the Chinese market, product substitutability, and market access concerns may be important determinants of their trade war attitudes. There is also some evidence that firms with more extensive exposure to the Trump tariffs are less likely to support the trade war. Somewhat counterintuitively, the analysis yielded no evidence that the share of a firm's fixed asset investments in China affects its trade war attitudes. Finally, the results are consistent with the predictions of existing theories about the effects of export orientation and import competition on trade preferences,[63] although *exports* and *imports* are generally insignificant.

Table 2 presents results of probit models of the effect of local supplier network embeddedness on *relocation*, focusing on the effects of *local sourcing*, *supplier certification*, and *exports* as well as the interactive effects between each of the first two variables and *exports* (*local sourcing* × *exp*) and (*supplier certification* × *exp*). Probit models lend strong support to our expectation that a firm's embeddedness in local supplier networks is a strong predictor of its relocation tendency. *Local sourcing* and *supplier certification* are negatively signed in all model specifications. *Supplier certification* is statistically significant at the $p < 0.10$ level in all models 3–4, while *local sourcing* achieved statistical significance at the $p < 0.10$ level in Model 1. These results are consistent with our expectations that firms that are more

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[62]Because there are 66 firms in the sample with a value of "1" on the *tariff* variable, we also experimented with dropping these firms from the analysis. This procedure does not alter the interpretations of our findings.

[63]See, e.g., Milner (1989).

Table 1. Manufacturing relocation and firm attitudes toward the trade war.

Variable	(1) Support	(2) Support	(3) Support	(4) Support_dummy	(5) Support_dummy	(6) Support_dummy
Relocation	0.663***	0.667***	0.628***	0.730***	0.732***	0.709***
	(5.86)	(6.08)	(5.11)	(5.21)	(5.33)	(4.66)
Age	−0.00305	−0.00279	−0.00199	−0.00924	−0.00869	−0.00767
	(−0.45)	(−0.42)	(−0.29)	(−1.03)	(−0.98)	(−0.85)
Employees	0.00198	−0.000790	−0.00225	0.00182	0.00432	0.00256
	(0.05)	(−0.02)	(−0.05)	(0.04)	(0.08)	(0.05)
Productivity	−0.0213	−0.0326	−0.0255	−0.136*	−0.147**	−0.139**
	(−0.37)	(−0.56)	(−0.44)	(−1.94)	(−2.07)	(−2.11)
Market share	0.0126***	0.0152***	0.0142***	0.0156***	0.0188***	0.0191***
	(4.03)	(4.56)	(3.72)	(6.17)	(6.75)	(5.48)
Revenue	0.0633	0.0670	0.0660	0.0705	0.0724	0.0722
	(1.40)	(1.38)	(1.34)	(1.16)	(1.19)	(1.19)
Performance	−0.184***	−0.176***	−0.178***	−0.174***	−0.166***	−0.167***
	(−5.18)	(−5.34)	(−5.53)	(−4.63)	(−4.20)	(−4.25)
Tariff	−0.00312	−0.000699	−0.00174	−0.0214***	−0.0191**	−0.0181**
	(−0.35)	(−0.08)	(−0.21)	(−2.68)	(−2.41)	(−2.56)
Substitution		0.176***	0.181***		0.150***	0.151***
		(4.72)	(4.56)		(2.65)	(2.66)
Fixed asset share		−0.00291	−0.00326		−0.00491	−0.00433
		(−0.81)	(−1.03)		(−1.06)	(−1.03)
Exports			−0.00328			−0.00706**
			(−1.50)			(−2.12)
Imports			0.00630			0.00483
			(1.54)			(1.17)

Constant				0.571	0.0379	0.107
				(1.52)	(0.08)	(0.22)
Cut 1	−1.069***	−0.412	−0.381			
	(−3.15)	(−1.06)	(−0.94)			
Cut 2	−0.172	0.500	0.533			
	(−0.51)	(1.29)	(1.30)			
Cut 3	0.286	0.962**	0.998**			
	(0.86)	(2.45)	(2.37)			
N	457	457	457	457	457	457

Note: t statistics in parentheses.
*$p < .10$; ** $p < 0.05$; *** $p < 0.01$.

Table 2. Probit models of the effect of embeddedness in local supplier networks and manufacturing relocation.

	(1)	(2)	(3)	(4)
Variable	*Relocation*	*Relocation*	*Relocation*	*Relocation*
Age	0.00730	0.00835	0.00825	0.00901
	(1.22)	(1.28)	(1.17)	(1.30)
Employees	−0.0375	0.0118	0.0283	0.0140
	(−0.87)	(0.23)	(0.52)	(0.26)
Productivity	0.0393	0.0590	0.0327	0.0552
	(0.62)	(0.94)	(0.58)	(0.89)
Market share		−0.00497	−0.00420	−0.00364
		(−1.47)	(−1.28)	(−1.10)
Revenue		−0.0689	−0.0686	−0.0699
		(−1.22)	(−1.18)	(−1.20)
Performance	−0.0404	−0.0252		−0.0240
	(−0.91)	(−0.57)		(−0.54)
Tariff	0.0375**	0.0374**		0.0377**
	(2.33)	(2.28)		(2.28)
Local sourcing	−0.165*	−0.148	−0.130	−0.121
	(−1.84)	(−1.52)	(−1.17)	(−1.17)
Local sourcing × Exp	−0.000550	−0.000527	−0.000447	−0.000737
	(−0.24)	(−0.23)	(−0.16)	(−0.30)
Supplier certification	−0.246	−0.252	−0.264*	−0.255*
	(−1.58)	(−1.62)	(−1.73)	(−1.65)
Supplier certification × Exp	0.00373	0.00370*	0.00443*	0.00379*
	(1.56)	(1.67)	(1.91)	(1.68)
Substitution			−0.00523	0.0150
			(−0.11)	(0.34)
Fixed asset share			−0.00412	−0.00426
			(−1.40)	(−1.39)
Exports	−0.0165*	−0.0160*	−0.0177*	−0.0153
	(−1.67)	(−1.74)	(−1.67)	(−1.62)
Imports	0.0159***	0.0179***	0.0194***	0.0187***
	(3.49)	(3.60)	(3.58)	(3.59)
Constant	1.487**	1.487**	1.629**	1.432**
	(2.25)	(2.37)	(2.27)	(2.00)
N	454	454	454	454

Note: *t* statistics in parentheses.
*$p < .10$; ** $p < 0.05$; *** $p < 0.01$.

heavily dependent on local sourcing or with a higher level of supplier certification in the Chinese market are less likely to engage in or to consider relocation activities. *Exports* has a negative relationship with *relocation* and achieved statistical significance in models 1–3. When we look at the interactive effects, we see that *supplier certification × exp* has a positive sign and is statistically significant in models 2–4. In model 2, increasing *exports* from its mean of 0 to its max of 100 will lead the effect of a

Table 3. Causal mediation analysis.

Variable	(1) Support	(2) Support
Relocation	0.679***	0.696***
	(4.85)	(4.96)
Age	−0.007	−0.007
	(−0.73)	(−0.77)
Employees	−0.004	0.007
	(−0.06)	(0.12)
Productivity	−0.127	−0.125
	(−1.54)	(−1.51)
Market share	0.0194***	0.0195***
	(4.82)	(4.88)
Revenue	0.0826	0.0648
	(1.49)	(1.17)
Performance	−0.161**	−0.159**
	(−2.46)	(−2.41)
Tariff	−0.0160	−0.0160
	(−1.17)	(−1.16)
Substitution	0.128*	0.154**
	(1.79)	(2.19)
Fixed asset share	−0.002	−0.004
	(−0.46)	(−0.91)
Exports	−0.006	−0.004
	(−0.61)	(−0.42)
Imports	0.003	0.005
	(0.60)	(0.95)
Local sourcing	−0.155 (−1.11)	−0.0292 (−0.23)
Local sourcing × Exp	−0.00006 (−0.02)	
Supplier certification × Exp		−0.0007 (−0.27)
Constant	0.463	0.0576
	(0.61)	(0.07)
N	457	457

Note: t statistics in parentheses.
*$p < .10$; ** $p < 0.05$; *** $p < 0.01$.

one-unit change in *supplier certification* on *relocation* to increase from −0.212 to 0.065. These results suggest that supplier certification has a more negative effect on relocation when firms have a lower level of export orientation. *Local sourcing × exp* did not achieve statistical significance. In this set of tests, both *tariffs* and *imports* have a positive and statistically significant effect on *relocation* across model specifications. *Exports* has the expected negative sign and is statistically significant in models 1–3. Variables pertaining to other firm attributes are largely insignificant in this test.
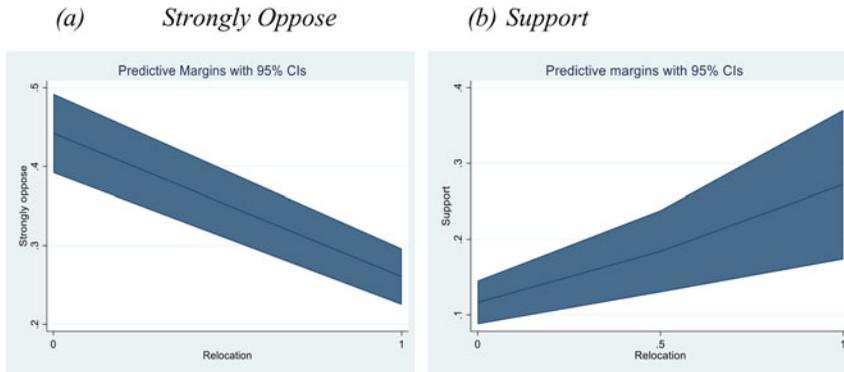
Figure 3. Predicted probability of supporting the Trump tariffs.

We further conducted causal mediation analysis which estimates the role of relocation through the transmission of the effect of local supplier networks on support for the trade war. In this set of analysis, we use measures of local supplier networks (i.e., *Local sourcing × exp* and *supplier certification × exp*) as the treatment variable, *relocation* as the mediation variable, and *support_dummy* as the outcome variable, respectively. The estimations were conducted using the mediation package in Stata.[64] Results of causal medication analysis indicate that *relocation* continues to have a positive and statistically significant effect on trade war support when taking into consideration both the direct and indirect effect of local supplier network embeddedness on firm attitudes toward the trade war (see Table 3). Analysis of causal mediation effect suggests that the average effect of *Local sourcing × exp* and *supplier certification × exp* on attitudes toward the trade war that operates through *relocation* is –0.0084 (Model 1) and –0.0039 (Model 2), with the average direct effect being –.0002 and –0.0003, respectively. Furthermore, the percentage of total effect mediated through *relocation* is 0.903 and 0.813 in each of the models (Table 4). Overall, these results yielded substantial evidence in support of our theoretical propositions, suggesting that local supplier networks play an important role in influencing relocation decisions and that *relocation* in turn shapes firms' attitudes toward the trade war.

Robustness checks

A couple of robustness checks were conducted to increase our confidence in the validity of our results. First, we recoded *relocation* as an ordinal variable and reestimated its effects on trade war attitudes. We additionally estimated the effects of local supplier networks on this alternative measure of *relocation*. Table 5 presents the results of this set of analyses. For brevity, the model only shows the estimates for the main variables. Model estimates are consistent with our expectations, although the results lend stronger support for local sourcing instead of supplier certification as a major determinant of *relocation* in Table 5(b).

Second, because President Trump's trade war is designed to bring manufacturing jobs back to the United States and to make "America great again," it is possible that the trade war may enjoy stronger support from American firms than those of other national origins. To see if this is the case, we reran the models in Table 1 adding a dummy variable for US firms (*US firm*). As mentioned in the preceding text, 131 (28.67%) of the firms in the estimation sample are headquartered in the United States. As can be seen in Table 6, *US firm* is positively signed and statistically significant at the $p < 0.01$ level in all model specifications, indicating a higher level of support for the trade war among American firms compared to those originating from outside of the United States.

Third, it is possible that the main causal mechanisms analyzed may vary for firms located in different geographical regions within China or for industries with varying levels of capital intensity. We consider the firm's geographical location because it is possible that local governments in inland provinces, many of which have stronger needs for the job opportunities offered by foreign investment, may

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[64]For a detailed introduction to causal mediation analysis, see Hicks and Tingley (2011).

Table 4. Causal mediation effect.

Effect	Model 1			Model 2		
	Mean	[95% Conf. Interval]		Mean	[95% Conf. Interval]	
ACME1	–0.0084	–0.0153	–0.0028	–0.0039	–0.0110	0.0019
ACME0	–0.0084	–0.0153	–0.0028	–0.0039	–0.0110	0.0019
Direct Effect 1	–0.0002	–0.0021	0.0010	–0.0003	–0.0019	0.0008
Direct Effect 0	–0.0002	–0.0020	0.0010	–0.0003	–0.0019	0.0008
Total Effect	–0.0086	–0.0160	–0.0023	–0.0042	–0.0116	0.0019
% of Total via ACME1	0.9040	0.5277	3.5973	0.8131	–8.2673	9.8446
% of Total via ACME0	0.9030	0.5273	3.5946	0.8119	–8.2548	9.8297
Average Mediator	–0.0084	–0.0153	–0.0028	–0.0039	–0.0110	0.0019
Average Direct Effect	–0.0002	–0.0020	0.0010	–0.0003	–0.0019	0.0008
% Total Effect Mediated	0.9030	0.5275	3.5960	0.8125	–8.2610	9.8371

Tables 5. Models with alternative measure of relocation.
(a) Trade War Support

Variable	(1) Support	(2) Support	(3) Support	(4) Support_dummy	(5) Support_dummy	(6) Support_dummy
Tariff	–0.00231	0.000209	–0.00140	–0.0186**	–0.0161**	–0.0160**
	(–0.27)	(0.02)	(–0.18)	(–2.30)	(–1.98)	(–2.11)
Relocation	0.324***	0.330***	0.309***	0.311***	0.317***	0.303***
	(7.25)	(7.39)	(5.98)	(5.07)	(5.11)	(4.32)
N	457	457	457	457	457	457

Note: *t* statistics in parentheses.
*$p < .10$; ** $p < 0.05$; *** $p < 0.01$.

have offered stronger incentives to MNC subsidiaries to remain in the local market. This may have attenuated the impact of local supplier networks on relocation. We further examine the differences in firms' capital intensity because labor-intensive industries may be more sensitive to changes in production costs and hence may be more likely to relocate production in view of the rising costs caused by the tariffs. To address the previously mentioned possibilities, we split the sample into coastal versus inland provinces and capital-intensive versus labor-intensive industries and reestimated the determinants of trade war attitudes and relocation decisions, respectively.[65] The results suggest that *relocation* is an important determinant of trade war attitudes for all types of industries. However, our hypothesis regarding the impact of local supplier networks on relocation operates more strongly for capital-intensive than labor-intensive industries and for coastal than inland regions. These findings suggests that local supplier networks are a less salient factor in the relocation decisions of labor-intensive firms and for firms located in inland provinces, as conjectured.[66]

Fourth, we have focused on the effect of local supplier networks on relocation *and* the effect of relocation on trade war attitudes in the preceding analysis without also considering the potential role of local supplier networks in influencing trade war attitudes. On the one hand, it is possible that given their denser ties to the local market, these firms may be more likely to support the trade war as it will help address some of their long-standing complaints about China's unfair trade practices.

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[65]The criteria used for splitting the sample are available from the authors upon request.
[66]These results are available from the authors upon request.

(b) Local Supplier Network and Relocation

Variable	(1) Relocation	(2) Relocation	(3) Relocation	(4) Relocation
Tariff	0.0381**	0.0382**		0.0385**
	(2.44)	(2.42)		(2.47)
Local sourcing	−0.219**	−0.203**	−0.208**	−0.198**
	(−2.36)	(−2.05)	(−1.98)	(−2.03)
Local sourcing × Exp	0.00167	0.00167*	0.00202	0.00168*
	(0.72)	(0.71)	(0.76)	(0.71)
Supplier certification	−0.147	−0.150	−0.162	−0.150
	(−0.97)	(−1.00)	(−1.07)	(−1.01)
Supplier certification × Exp	0.00233	0.00227	0.00297	0.00226
	(1.04)	(1.08)	(1.29)	(1.07)
cut1	−0.793	−0.798	−1.042	−0.731
	(−1.29)	(−1.38)	(−1.54)	(−1.08)
cut2	0.492	0.490	0.221	0.557
	(0.81)	(0.85)	(0.33)	(0.83)
N	457	457	457	457

However, on the other hand, it is also possible that they may be less likely to be favorably disposed toward the trade war and may instead prefer to end it so that they can go back to business as usual. The causal mediation analysis presented in Table 4 indicates that the average direct effect of *Local sourcing × exp* on trade war attitudes is −0.0002, while the direct effect of *supplier certification × exp* is −0.0003, and both are significant. To further investigate the effect of local supplier relationships on trade war attitudes, we ran ordered probit and probit models with *support* and *support_dummy* as the dependent variables and variables capturing local supplier networks and the other covariates as the independent variables. Estimation results suggest that *local sourcing* and *supplier certification* have the expected negative sign, while *local sourcing × exp* and *supplier certification × exp* are positively signed. However, except for *local sourcing* which has achieved statistical significance in one of the models, the rest of the models are broadly insignificant.[67] Overall, the previously mentioned empirical analysis yielded some preliminary evidence that firms more heavily embedded in local supplier networks may be less likely to support the trade war, but the results are far from overwhelming and merit further investigation.

Finally, to ensure that our results are not influenced by the method of participant recruitment used by the survey house and are instead broadly representative of mid- to upper-level executives of China-based MNCs, we also implemented the survey through another survey company based in China, Credamo. The company has more than 1.5 million registered users covering all administrative regions in China. If results based on two different samples drawn by two different companies point in the same direction, then it should ameliorate potential concerns about our sample bias. Findings from this set of analysis are again consistent with those reported in the preceding text.

Conclusion

This article examines the attitudes of China-based MNCs toward the US-China trade war. We hypothesize that firm attitudes toward the trade war should be influenced by the degree to which they possess outside options, as proxied by firms' tendency toward the relocation of production that would help

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[67]These results are available from the authors upon request.

Table 6. US firms and attitudes toward the trade war.

Variable	(1) Support	(2) Support	(3) Support	(4) Support_dummy	(5) Support_dummy	(6) Support_dummy
Age	0.000640	0.000253	0.00113	−0.00165	−0.00150	0.000205
	(0.08)	(0.03)	(0.14)	(−0.16)	(−0.15)	(0.02)
Employees	0.0353	0.0371	0.0382	0.0238	0.0320	0.0361
	(0.76)	(0.77)	(0.77)	(0.52)	(0.68)	(0.73)
Revenue	0.0637	0.0690	0.0684	0.0591	0.0611	0.0595
	(1.42)	(1.48)	(1.47)	(1.01)	(1.07)	(1.07)
Productivity	−0.0567	−0.0650	−0.0562	−0.189**	−0.200**	−0.191**
	(−1.07)	(−1.24)	(−1.10)	(−2.19)	(−2.26)	(−2.40)
Market share	0.0127***	0.0157***	0.0144***	0.0159***	0.0198***	0.0205***
	(3.92)	(4.45)	(3.60)	(6.22)	(7.23)	(6.91)
Performance	−0.180***	−0.170***	−0.168***	−0.180***	−0.168***	−0.164***
	(−5.11)	(−5.12)	(−4.91)	(−5.65)	(−5.02)	(−4.73)
Relocation	0.635***	0.637***	0.592***	0.662***	0.661***	0.636***
	(5.62)	(5.94)	(5.29)	(5.41)	(5.63)	(5.27)
US firm	0.391***	0.373***	0.367***	0.399***	0.394***	0.403***
	(5.05)	(4.90)	(4.93)	(3.83)	(3.89)	(3.80)
Substitution		0.157***	0.164***		0.129**	0.132**
		(3.42)	(3.27)		(2.20)	(2.22)
Fixed asset share		−0.00358	−0.00397		−0.00650	−0.00560
		(−1.01)	(−1.28)		(−1.45)	(−1.39)
Exports			−0.00439*			−0.00986***
			(−1.72)			(−3.32)
Imports			0.00801**			0.00648**
			(2.47)			(2.00)
cut 1	−0.694	−0.0361	0.0108	−0.0952	0.388	0.326
	(−1.45)	(−0.08)	(0.02)	(−0.19)	(0.80)	(0.66)
cut 2	0.213	0.883*	0.934**			
_	(0.45)	(1.95)	(2.01)			
cut 3	0.675	1.349***	1.405***			
	(1.47)	(2.97)	(2.98)			
N	475	475	475	475	475	475

minimize the impact of the tariffs on their business operations. We further conjecture that firms' actual or expressed tendencies toward the relocation of production could be explained by their embeddedness in local supplier networks as firms that are more heavily dependent on the Chinese market for sourcing activities or have a larger share of their products subject to supplier certification should face more significant sunk costs that should reduce their tendency to relocate from the Chinese market. Our analysis of an original survey of mid- and upper-level executives of China-based MNC subsidiaries lent substantial support to these hypotheses.

Existing literature on firm trade preferences emphasizes the importance of firms' import or export orientation[68] or position in global value chains[69] in shaping their trade attitudes. Our findings contribute to this literature by highlighting manufacturing relocation as another key factor influencing firm stance toward the trade war. We suggest that there may exist significant differences in the trade policy preferences of MNC subsidiaries that are capable of relocating production and those that lack such capabilities, with the former better positioned to evade protectionist trade barriers that may threaten their production activities in the host country and therefore profitability and competitiveness. Consequently, MNC subsidiaries that have already relocated production or are considering doing so should be less likely to oppose the trade war and the accompanying tariffs. In other words, the heterogeneity among firms with respect to the global manufacturing footprint may play an important role in influencing their trade preferences.

In addition to contributing to the literature on firm trade preferences, our study also enriches our understanding of the determinants of manufacturing relocation. While previous studies have identified both the internal and external drivers of reshoring,[70] our study shows that resource dependency, as reflected in dependence on local suppliers and the extent of supplier certification, may be another important factor explaining firms' organizational inertia and hence propensity to engage in relocation. As such, our study enhances our understanding of the drivers of relocation activities. Our results indicate that while rising global political and economic uncertainty has increased the call for value chain relocation, a relatively small proportion of the firms in our sample have relocated production out of China. It is possible that despite mounting challenges, firms may continue to be drawn to the growth potential of the Chinese market due to its large consumer base, rising middle class, concentration of manufacturing clusters, and rapidly developing innovative capability and have opted to navigate the increasingly uncertain business environment in China to capitalize on future growth opportunities in the Chinese market. It is also possible that the US tariffs on China may have led to the diversion of imports from China to other countries or regions such as Southeast Asia instead of exerting a more direct impact on investment patterns.[71]

In this study, we have focused on the stance of MNC subsidiaries toward the trade war. Whether and how they seek to influence trade policy merits closer scrutiny. Future studies could investigate whether subsidiaries defend their interests by engaging in direct lobbying or by signaling to lead firms their desire for more political action, questions that will be particularly interesting in the context of an authoritarian regime such as China. An emerging body of studies on business lobbying in China has shown that domestic and foreign firms in China alike have gained a growing ability to influence various stages of the process of economic policy making on issues such as antidumping, currency undervaluation, or FDI regulation.[72] Additional analyses could be conducted to see if relocation influences lobbying patterns in the way predicted by our theory. They could additionally assess whether and how firms engage in political action when faced with unprecedented tensions in US-China relations such as those generated by the trade war.

References

Albertoni, Filippo, Stefano Elia, Silvia Massini, and Lucia Piscitello. 2017. "The Reshoring of Business Services: Reaction to Failure or Persistent Strategy?" *Journal of World Business* 52 (3): 417–30.

Alessandria, George, and Horag Choi. 2007. "Do Sunk Costs of Exporting Matter for Net Export Dynamics?" *The Quarterly Journal of Economics* 122 (1): 289–336.

Ambos, Tina C., Ulf Andersson, and Julian Birkinshaw. 2010. "What Are the Consequences of Initiative-Taking in Multinational Subsidiaries?" *Journal of International Business Studies* 41 (7): 1099–1118.

AmCham China. 2020. *2020 China Business Climate Survey Report.*

Amiti, Mary, Stephen J. Redding, and David E. Weinstein. 2020. "Who's Paying for the US Tariffs? A Longer-Term Perspective." *AEA Papers and Proceedings* 110: 541–46.

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[68]Choi (2001); Milner (1989).

[69]Eckhardt and Lee (2018); Meckling and Hughes (2017); Osgood (2017).

[70]See, e.g., Ancarani et al. (2015); Barbieri et al. (2018); Ellram et al. (2013); Fratocchi et al., (2016).

[71]Hanson (2020).

[72]Kennedy (2005); Naoi et al. (2022); Steinberg and Shih (2012).

Ancarani, Alessandro, Carmela Di Mauro, and Francesco Mascali. 2019. "Backshoring Strategy and the Adoption of Industry 4.0: Evidence from Europe." *Journal of World Business* 54 (4): 360–71.

Ancarani, Alessandro, Carmela Di Mauro, Luciano Fratocchi, Guido Orzes, and Marco Sartor. 2015. "Prior to Reshoring: A Duration Analysis of Foreign Manufacturing Ventures." *International Journal of Production Economics* 169: 141–55.

Andersson, Ulf, and Mats Forsgren. 1996. "Subsidiary Embeddedness and Control in the Multinational Corporation." *International Business Review* 5 (5): 487–508.

Andersson, Ulf, Mats Forsgren, and Ulf Holm. 2002. "The Strategic Impact of External Networks: Subsidiary Performance and Competence Development in the Multinational Corporation." *Strategic Management Journal* 23 (11): 979–96.

Andersson, Ulf, Mats Forsgren, and Ulf Holm. 2007. "Balancing Subsidiary Influence in the Federative MNC: A Business Network View." *Journal of International Business Studies* 38 (5): 802–18.

Arkes, Hal Richard, and Catherine Blumer. 1985. "The Psychology of Sunk Cost." *Organizational Behavior and Human Decision Processes* 35 (1): 124–40.

Baldwin, Robert. 1988. "Hysteresis in Import Prices: The Beachhead Effect." *American Economic Review* 78 (4): 773–85.

Baldwin, Richard, and Paul Krugman. 1989. "Persistent Trade Effects of Large Exchange Rate Changes." *Quarterly Journal of Economics* 104 (4): 635–54.

Barbieri, Paolo, Francesco Ciabuschi, Luciano Fratocchi, and Matteo Vignoli. 2018. "What Do We Know about Manufacturing Reshoring?" *Journal of Global Operations and Strategic Sourcing* 11 (1): 79–122.

Barney, Jay. 1991. "Firm Resources and Sustained Competitive Advantage." *Journal of Management* 17 (1): 99–120.

Baumol, William J., John C. Panzar, and Robert D. Willig. 1982. *Contestable Markets and the Theory of Industry Structure.* New York: Harcourt Brace Jovanovich, Inc.

Birkinshaw, Julian. 1997. "Entrepreneurship in Multinational Corporations: The Characteristics of Subsidiary Initiatives." *Strategic Management Journal* 18 (3): 207–29.

Birkinshaw, Julian, Neil Hood, and Stephen Young. 2005. "Subsidiary Entrepreneurship, Internal and External Competitive Forces, and Subsidiary Performance." *International Business Review* 14 (2): 227–48.

Boffelli, Albachiara., Ruggero Golini, Guido Orzes, and Stefano Dotti. 2020. "Open the Box: A Behavioural Perspective on the Reshoring Decision-Making and Implementation Process." *Journal of Purchasing and Supply Management* 26 (3): 100623.

Canham, Stephen and Robert T. Hamilton. 2013. "SME Internationalisation: Offshoring,'Backshoring,' or Staying at Home in New Zealand." *Strategic Outsourcing: An International Journal* 6 (3): 277–91.

Chatzopoulou, Erifili-Christina, Pavlos Dimitratos, and Spyros Lioukas. 2021. "Agency Controls and Subsidiary Strategic Initiatives: The Mediating Role of Subsidiary Autonomy." *International Business Review* 30 (3): 101807.

Choi, Jay Pil. 2001. "Protectionist Response to Import Competition in Declining Industries Reconsidered." *European Journal of Political Economy* 17 (1): 193–201.

Davis, Christina L., and Sophie Meunier. 2011. "Business as Usual? Economic Responses to Political Tensions." *American Journal of Political Science* 55 (3): 626–46.

Destler, I. M., and John S. Odell. 1987. *Anti-Protection: Changing Forces in United States Trade Policy.* Washington, DC: Institute for International Economics.

Dixit, Avinash. 1989. "Hysteresis, Import Penetration, and Exchange Rate Pass-Through." *Quarterly Journal of Economics* 104 (2): 205–28.

Dunning, John H. 1980. "Toward an Eclectic Theory of International Production: Some Empirical Tests." *Journal of International Business Studies* 11 (1): 9–31.

Dunning, John H. 1988. "The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions." *Journal of International Business Studies* 19 (1): 1–31.

Eckhardt, Jappe, and Kelley Lee. 2018. "Global Value Chains, Firm Preferences and the Design of Preferential Trade Agreements." *Global Policy* 9 (S2): 58–66.

Eckhardt, Jappe, and Arlo Poletti. 2016. "The Politics of Global Value Chains: Import-Dependent Firms and EU-Asia Trade Agreements." *Journal of European Public Policy* 23 (10): 1543–62.

Eden, Lorraine, and Li Dai. 2010. "Rethinking the O in Dunning's OLI/Eclectic Paradigm." *Multinational Business Review* 18 (2): 13–34.

Ellram, Lisa M., Wendy Tate, and Kenneth J. Petersen. 2013. "Offshoring and Reshoring: An Update on the Manufacturing Location Decision." *Journal of Supply Chain Management* 49 (2): 14–22.

European Union Chamber of Commerce in China. 2022. *Business Confidence Survey 2022.* Accessed, https://www.european-chamber.com.cn/en/publications-business-confidence-survey. Accessed 20 November, 2022.

Fel, Fabienne, and Eric Griette. 2017. "Near-Reshoring Your Supplies from China: A Good Deal for Financial Motives Too." *Strategic Direction* 33 (2): 24–26.

Foerstl, Kai, John F. Kirchoff, and Lydia Bals. 2016. "Reshoring and Insourcing: Drivers and Future Research Directions." *International Journal of Physical Distribution & Logistics Management* 46 (5): 492–515.

Fratocchi, Luciano, Ancarani, Alessandro, Paolo Barbieri, Carmela Di Mauro, Guido Nassimbeni, Marcoi Sartor, Matteo Vignoli, and Amdrea Zanoni. 2015. "Manufacturing Back-Reshoring as a Nonlinear Internationalization Process." *The Future of Global Organizing* 10: 365–403.

Fratocchi, Luciano, Alessandro Ancarani, Paolo Barbieri, Carmela Di Mauro, Guido Nassimbeni, Marco Sartor, Matteo Vignoli, and Andrea Zanoni. 2016. "Motivations of Manufacturing Reshoring: An Interpretative Framework." *International Journal of Physical Distribution & Logistics Management* 46 (2): 98–127.

Freund, Caroline, Aaditya Mattoo, Alen Muabdic, and Michele Ruta. 2022. "Natural Disasters and the Reshaping of Global Value Chains." *IMF Economic Review* 70: 590–623.

Gawande, Kishore, Pravin Krishna, and Marcelo Olarreaga. 2012. "Lobbying Competition over Trade Policy." *International Economic Review* 53 (1): 115–32.

Gray, John V., Keith Skowronski, Gökçe Esenduran, and M. Johnny Rungtusanatham. 2013. "The Reshoring Phenomenon: What Supply Chain Academics Ought to Know and Should Do." *Journal of Supply Chain Management* 49 (2): 27–33.

Haas, Ryan, and Abraham Denmark. 2020. "More Pain Than Gain: How the US-China Trade War Hurt America." Brookings Institution blogpost, 7 August.

Hanson, Gordon. 2020. "The Impacts of the US-China Trade War." *Business Economics* 55: 69–72.

Helpman, Elhanan, Marc J. Melitz, and Stephen R. Yeaple. 2004. "Export Versus FDI with Heterogeneous Firms." *American Economic Review* 94 (1): 300–16.

Hicks, Raymond, and Dustin Tingley. 2011. "Causal Mediation Analysis." *The Stata Journal* 11 (4): 605–19.

Jensen, J. Bradford, Dennis P. Quinn, and Stephen Weymouth. 2015. "The Influence of Firm Global Supply Chains and Foreign Currency Undervaluations on US Trade Disputes." *International Organization* 69 (4): 913–47.

Kazmer, David. 2014. "Manufacturing Outsourcing, Onshoring, and Global Equilibrium." *Business Horizons* 57 (4): 463–72.

Kelly, Dawn, and Terry L. Amburgey. 1991. "Organizational Inertia and Momentum: Dynamic Model of Strategic Change." *Academy of Management Journal* 34 (3): 591–612.

Kennedy, Scott. 2005. "China's Porous Protectionism: The Changing Political Economy of Trade Policy." *Political Science Quarterly* 120 (3): 407–32.

Kim, In Song, and Helen V. Milner. 2021. "Multinational Corporations and Their Influence through Lobbying on Foreign Policy." In *Global Goliaths: Multinational Corporations in a Changing Global Economy*, edited by C. Fritz Foley, James Hines, and David Wessel, 497–536. Washington, DC: The Brookings Institution.

Kim, In Song, Helen V. Milner, Thomas Bernauer, Gabriele Spilker, Iain Osgood, and Dustin Tingley. 2019. "Firm' Preferences over Multidimensional Trade Policies: Global Production Chains, Investment Protection Dispute Settlement Mechanisms." *International Studies Quarterly* 63 (1): 153–67.

Kinkel, Steffen. 2012. "Trends in Production Relocation and Backshoring Activities: Changing Patterns in the Course of the Global Economic Crisis." *International Journal of Operations & Production Management* 32 (6): 696–720.

Krenz, Astrid, Klause Prettner, and Holger Strulik. 2021. "Robots, Reshoring, and the Lot of Low-Skilled Workers." *European Economic Review* 136: Article 107844.

Lardy, Nicholas R. 2021. "Foreign Investments into China Are Accelerating Despite Global Economic Tensions and Restrictions." Peterson Institute for International Economics, China Economic Watch, July 22.

Lee, Jieun, and Iain Osgood. 2021. "Firms Fight Back: Production Networks and Corporate Opposition to the China Trade War." In *Geopolitics, Supply Chains, and International Relations in East Asia*, edited by Etel Solingen. New York: Cambridge University Press.

Lee, Jieun, and Iain Osgood. 2022. "Protection Forestall: Offshore Firms against Tariffs in Their Own Industry." *Business and Politics* 24 (4): 377–98.

Liu, Rigao, Samantha Vortherms, and Jack Zhang. 2022. "In the Middle: American Multinationals in China and Trade War Politics." *Business and Politics* 24 (4): 348–76.

Manger, Mark. 2009. *Investing in Protection: The Politics of Preferential Trade Agreements between North and South*. New York: Cambridge University Press.

Manger, Mark. 2012. "Vertical Trade Specialization and the Formation of North-South PTAs." *World Politics* 64 (4): 622–58.

McIvor, Ronan, and Lydia Bals. 2021. "A Multi-theory Framework for Understanding the Reshoring Decision." *International Business Review* 30 (6): 101827.

Meckling, Jonas, and Llewelyn Hughes. 2017. "Globalizing Solar: Global Supply Chains and Trade Preferences." *International Studies Quarterly* 61 (2): 225–35.

Milner, Helen. 1989. *Resisting Protectionism: Global Industries and the Politics of International Trade*. Princeton, NJ: Princeton University Press.

Moradlou, Hamid, and C. J. Backhouse. 2016. "A Review of Manufacturing Re-shoring in the Context of Customer-Focused Postponement Strategies." *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture* 230 (9): 1561–71.

Mudambi, Ram, Torben Pedersen, and Ulf Andersson. 2014. "How Subsidiaries Gain Power in Multinational Corporations." *Journal of World Business* 1: 101–13.

Naoi, Megumi, Weiyi Shi, and Boliang Zhu. 2022. "'Yes-Man' Firms: Government Campaigns and Policy Positioning of Businesses in China." *International Studies Quarterly* 66 (4): sqac075.

Nienhüser, Werner. 2008. "Resource Dependence Theory: How Well Does It Explain Behavior of Organizations?" *Management Revue* 19 (2): 9–32.

O'Donnell, Sharon Watson. 2000. "Managing Foreign Subsidiaries: Agents of Headquarters, or an Interdependent Network?" *Strategic Management* 21 (5): 525–48.

Osgood, Iain. 2017. "'Industrial Fragmentation over Trade'": The Role of Variation in Global Engagement." *International Studies Quarterly* 61 (3): 642–59.

Osgood, Iain. 2018. "Globalizing the Supply Chain: Firm and Industrial Support for US Trade Agreements." *International Organization* 72 (2): 455–84.

Pfeffer, Jeffrey, and Gerald R. Salancik. 1978. *The External Control of Organizations. A Resource Dependence Perspective*. New York: Harper & Row.

Scott, Pamela, and Patrick T. Gibbons. 2011. "Emerging Threats for MNC Subsidiaries and the Cycle of Decline." *Journal of Business Strategy* 32 (1): 34–41.

Srai, Jagjit S., and Camille Ané. 2016. "Institutional and Strategic Operations Perspectives on Manufacturing Reshoring." *International Journal of Production Research* 54 (23): 7193–7211.

Statistical Bulletin of FDI in China 2020. 2020. Beijing: Ministry of Commerce of the People's Republic of China.

Steinberg, David A., and Victor C. Shih. 2012. "Interest Group Influence in Authoritarian States: The Political Determinants of Chinese Exchange Rate Policy." *Comparative Political Studies* 45 (11): 1405–34.

Stentoft, Jan, Jan Olhager, Jussi Heikkilä, and Lisa Thoms, L. 2016. "Manufacturing Backshoring: A Systematic Literature Review." *Operations Management Research* 9 (3): 53–61.

Tate, Wendy L., Lisa M. Ellram, Tobias Schoenherr, and Kenneth J. Petersen. 2014. "Global Competitive Conditions Driving the Manufacturing Location Decision." *Business Horizons* 57 (3): 381–90.

Vortherms, Samantha, and Jack Zhang. 2021. "Political Risk and Firm Exit: Evidence from the US-China Trade War." 21st Century China Center Research Paper No. 2021–09.

Wei, Yingqi, Xiaming Liu, Chengang Wang, and Jue Wang. 2012. "Local Sourcing and Multinational Enterprises in China." *International Journal of Emerging Markets* 7 (4): 364–82.

Wiesmann, Benedikt, Jochem Ronald Snoei, Per Hilletofth, and David Eriksson. 2017. "Drivers and Barriers to Reshoring: A Literature Review on Offshoring in Reverse." *European Business Review* 29 (1): 15–42.

Williamson, Oliver E. 2008. "Outsourcing: Transaction Cost Economics and Supply Chain Management." *Journal of Supply Chain Management* 44 (2): 5–16.

Xing, Yuqing. 2021. "Global Value Chains and the US-China Trade War." In *Geopolitics, Supply Chains, and International Relations in East Asia*, edited by Etel Solingen. New York: Cambridge University Press.

Zeng, Ka. 2021. "'Exit' vs. 'Voice': Global Sourcing, Multinational Production, and the China Trade Lobby." *Business and Politics* 32 (2): 282–308.

Zhu, Boliang, Aubrey Waddick, Yilang Feng, and Angel Villegas-Cruz. 2021. "Firms Caught in Crossfire: International Stakes and Domestic Politics in Corporate Positioning on De-Globalization." Paper presented at the annual meeting of the American Political Science Association, September.

Appendix 1A: Descriptive statistics of the main variables.

Variable	Obs	Mean	Std. dev.	Min	Max
Support (a)	457	2.090	1.098	1	4
Support dummy (b)	457	0.300	0.459	0	1
Relocation (c)	457	0.365	0.482	0	1
Age (d)	457	12.689	7.560	1	42
Employees (e)	457	3.000	1.476	1	6
Productivity (f)	457	3.880	0.872	1	5
Market share (g)	457	36.556	21.002	1	100
Revenue (h)	457	4.372	1.587	1	7
Performance (i)	457	8.577	1.045	5.125	11
Tariff (j)	457	8.179	5.183	1	30
Substitution (k)	457	3.562	0.972	1	6
Fixed asset share (l)	457	40.663	17.628	0	100
Exports (m)	457	42.405	20.326	0	100
Imports (n)	457	33.580	17.634	0	91
Local sourcing (o)	457	3.149	1.000	1	5
Supplier certification (p)	457	134.882	82.119	0	500
Local sourcing × Exp (q)	457	3.558	1.231	1	5
Supplier certification × Exp (r)	457	151.856	96.195	0	500

Appendix 1B: Correlation statistics of the main variables.

Variable	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Support (a)	1.000								
Support dummy (b)	0.892	1.000							
Relocation (c)	0.282	0.247	1.000						
Age (d)	0.001	−0.025	0.000	1.000					
Employees (e)	0.089	0.058	0.009	0.298	1.000				
Productivity (f)	−0.016	−0.063	−0.026	0.133	0.208	1.000			
Market share (g)	0.208	0.193	0.011	0.003	0.199	0.147	1.000		
Revenue (h)	0.050	0.024	−0.058	0.337	0.599	0.278	0.056	1.000	
Performance (i)	−0.131	−0.114	−0.056	−0.016	−0.012	0.199	0.148	0.097	1.000
Tariff (j)	0.054	−0.002	0.151	−0.033	0.113	−0.024	0.073	0.061	−0.025
Substitution (k)	0.092	0.064	0.000	0.011	−0.011	0.028	−0.170	−0.022	−0.073
Fixed asset share (l)	0.042	0.030	−0.031	0.070	0.144	0.108	0.448	0.070	0.091
Exports (m)	0.034	−0.010	0.044	0.098	0.155	0.130	0.333	0.084	0.052
Imports (n)	0.179	0.127	0.204	0.000	0.147	0.052	0.429	0.053	0.066
Local sourcing (o)	−0.178	−0.160	−0.177	0.074	0.048	0.116	0.045	0.135	0.101
Supplier certification (p)	−0.034	−0.073	−0.036	0.133	0.164	0.162	0.314	0.125	0.074
Local sourcing x Exp (q)	−0.096	−0.083	−0.104	0.076	0.071	0.140	0.120	0.000	0.140
Supplier certification x Exp (r)	−0.018	−0.050	−0.002	0.099	0.156	0.200	0.333	0.045	0.108

Variable	(j)	(k)	(l)	m)	(n)	(o)	(p)	(q)	(r)
Tariff (j)	1.000								
Substitution (k)	−0.082	1.000							
Fixed asset share (l)	0.067	−0.064	1.000						
Exports (m)	0.154	−0.101	0.300	1.000					
Imports (n)	0.185	−0.119	0.325	0.496	1.000				
Local sourcing (o)	0.036	−0.172	0.229	0.067	−0.114	1.000			
Supplier certification (p)	0.163	−0.191	0.336	0.847	0.374	0.510	1.000		
Local sourcing x Exp (q)	0.095	0.016	0.130	0.039	−0.003	0.235	0.133	1.000	
Supplier certification x Exp (r)	0.192	−0.066	0.308	0.806	0.399	0.158	0.746	0.563	1.000